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Listing of Claims:

The following listing of claims replaces all prior versions and listings of claims in the application.

1.-57. (Canceled)

- 58. (Currently Amended) A method for altering the glycosylation profile of a mature form of a polypeptide of interest, the method comprising:
- a) preparing a nucleic acid comprising a nucleotide sequence encoding a peptide-extended polypeptide with the primary structure NH₂-X-Pp-COOH, wherein

NH₂ and COOH represent the N-terminus and the C-terminus of the peptideextended polypeptide, respectively;

X is a peptide addition 1-30 consecutive amino acids in length, wherein X which comprises or contributes to an in vivo N-glycosylation site; and

Pp is the sequence of the mature form of the polypeptide of interest, wherein X and Pp are linked by a peptide linkage; and

 b) expressing the nucleic acid in a glycosylating host cell to provide a peptide-extended glycosylated polypeptide;

wherein the peptide-extended glycosylated polypeptide exhibits an altered glycosylation pattern compared to that of the <u>mature form of the polypeptide</u> of interest when expressed under the same conditions.

- 59. (Currently Amended) The method of claim 58, further comprising:
- -e)—recovering the peptide-extended glycosylated polypeptide.
- 60. (Canceled)

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61. (Previously Presented) The method of claim 60, wherein X is of the formula:

 $X_1'-N-X_2-[\Upsilon/S]/C-Z$ wherein

X1' is absent or comprises at least one amino acid;

X2 is any one amino acid except proline;

Z is absent or comprises at least one amino acid;

N is asparagine; and

[T/S]/C is threonine, serine, or cysteine.

62. (Previously Presented) The method of claim 61, wherein X is of the formula:

$$X_1$$
-(N- X_2 -[T/S])- X_3 -(N- X_2 -[T/S])_n- X_4 wherein

 X_1 is absent, or is any 1, 2, 3, or 4 amino acids;

X2 is any one amino acid except proline;

 X_3 is absent, or is any 1, 2, 3, or 4 amino acids;

X₄ is absent, or is any 1, 2, 3, or 4 amino acids;

n is an integer between 0 and 6; N is asparagine; and [T/S] is threonine or serine.

63. (Previously Presented) The method of claim 61, wherein

X₂ is isoleucine, alanine, glycine, valine, or serine.

- 64. (Previously Presented) The method of claim 58, wherein the glycosylating host cell is a fungal cell, an insect cell, a mammalian cell, or a plant cell.
- 65. (Currently Amended) The method of claim 5859, further comprising:

reacting incubating the peptide-extended glycosylated polypeptide with a non-peptide moiety which differs from an oligosaccharide moiety, under conditions suitable to covalently attach at least one said non-peptide moiety to an attachment group of the polypeptide.

66.-72 (Canceled)